

FIG. 1

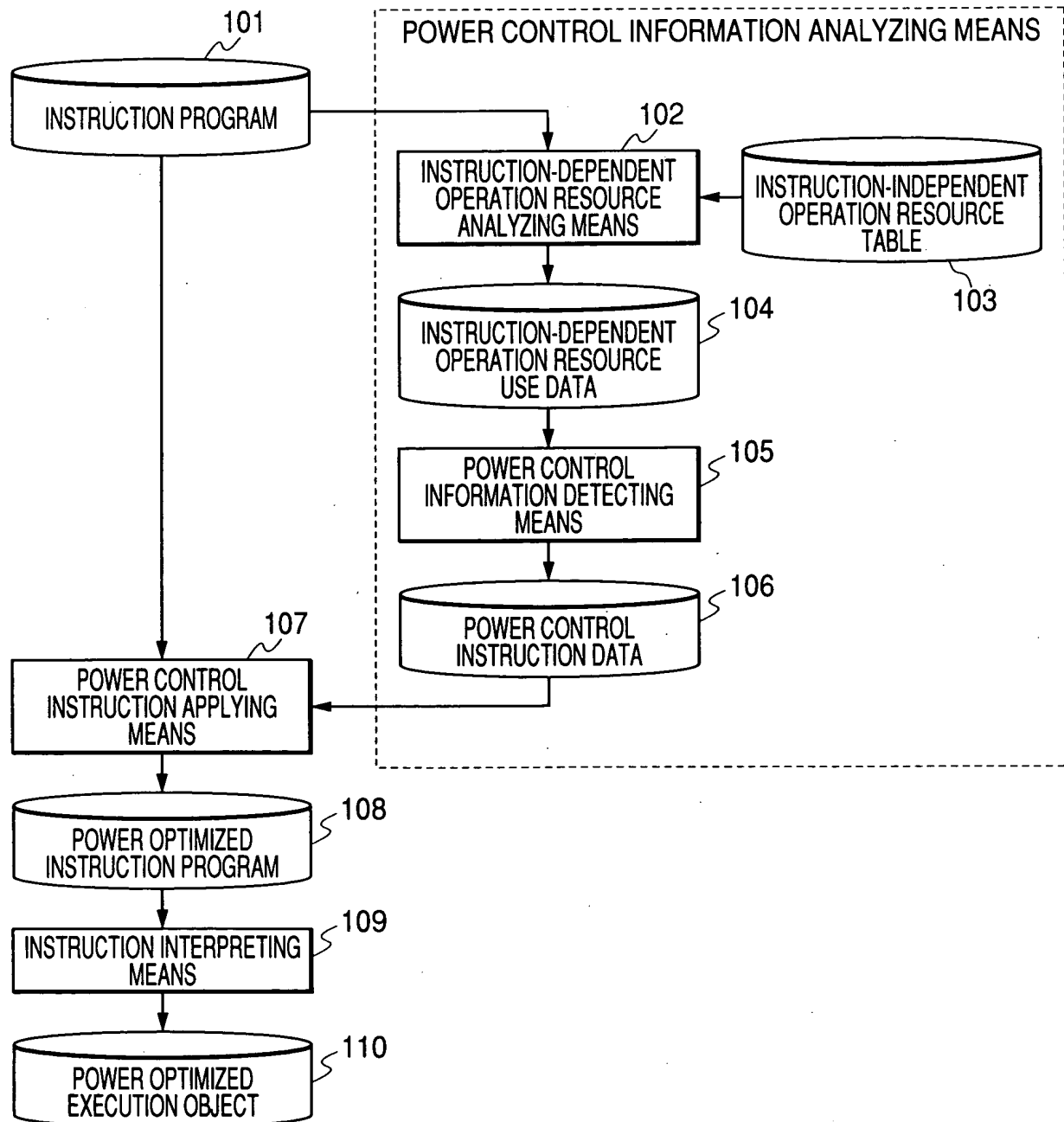


FIG. 2

201 INSTRUCTION MODE		202 OPERATION RESOURCE													
		MEMORY READ OPERATION	MEMORY WRITE OPERATION	CALCULATOR A OPERATION	CALCULATOR B OPERATION	BRANCH UNIT A OPERATION	BLOCK A OPERATION	BLOCK B OPERATION	BLOCK C OPERATION	PERIPHERAL INTERFACE A OPERATION	PARALLEL INSTRUCTION DECODE UNIT	DATA REGISTER R0 TO R15	DATA REGISTER R16 TO R31	ADDRESS CALCULATION UNIT	THRESHOLD VALUE UNIT
ADD	Rx, Ry, Rz	0	0	1	0	0	0	0	0	0	0	1	1	0	0
ADD	Rx, MEMy, MEMz	1	0	1	0	0	1	0	0	0	0	1	1	1	0
ADD	Rx, Ry, imm	0	0	1	0	0	0	0	0	0	0	1	0	0	1
LD	Ry, MEMy	1	0	0	0	0	1	0	0	0	0	0	0	0	0
LD	Ra, MEMy, ADD Rx, Ry, Rz	1	0	1	0	0	1	0	0	0	1	1	1	0	0
STR	Ra, MEMy	0	1	0	0	0	1	1	0	0	0	1	0	0	0
MUL	Rx, Ry, Rz	0	0	0	1	0	0	0	0	0	0	1	1	0	0
IO	ADDR	0	0	0	0	0	0	0	0	1	0	0	0	1	1
JUMP	Rx	0	0	0	0	1	0	0	0	0	0	1	0	0	0
LOOP	N	0	0	0	0	1	0	0	1	0	0	0	0	0	1
	:														

INSTRUCTION-INDEPENDENT OPERATION RESOURCE TABLE

FIG. 3

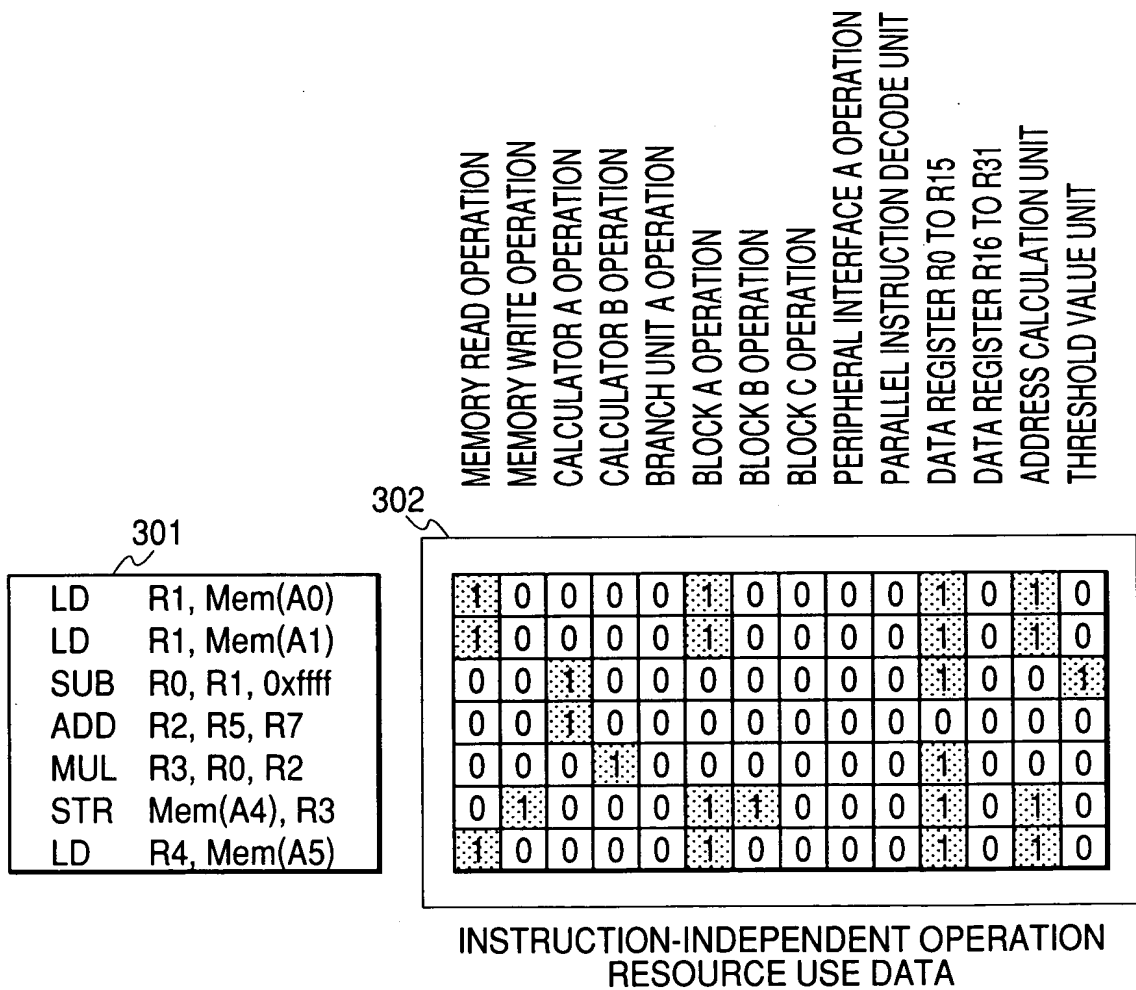


FIG. 4

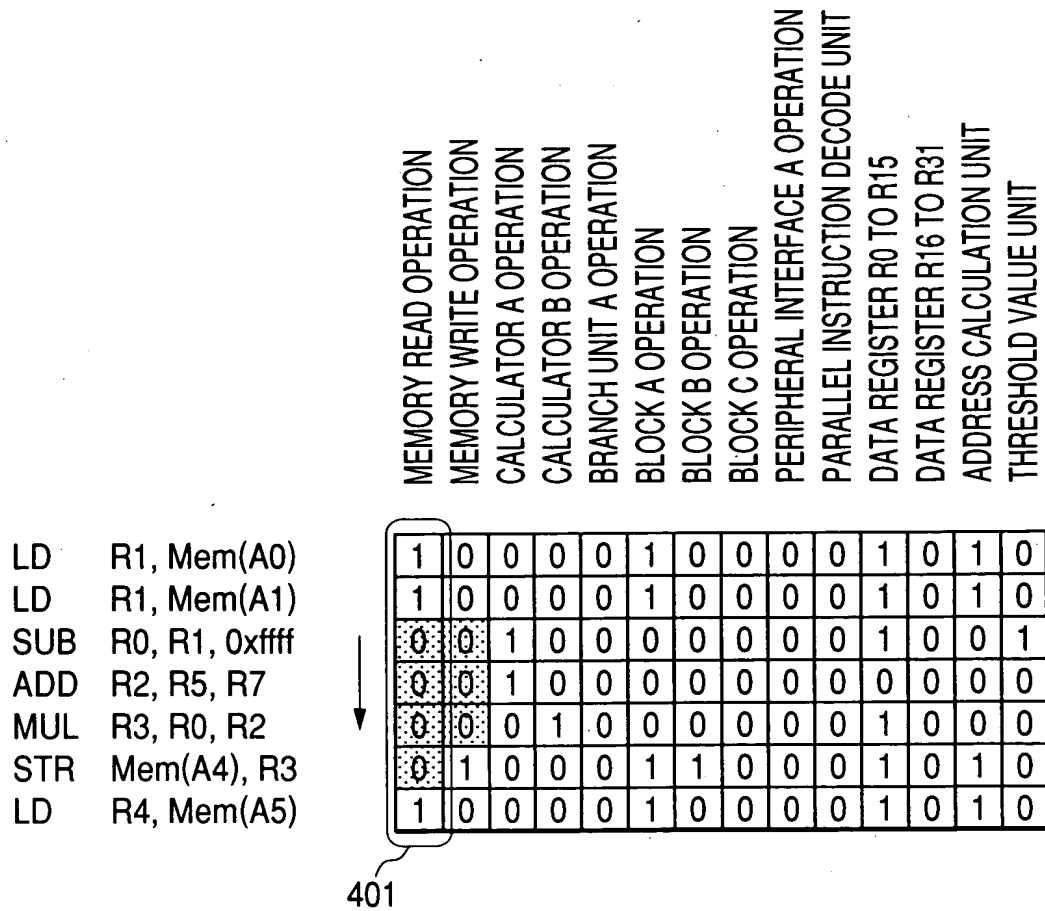


FIG. 5

LD R1, Mem(A0)

LD R1, Mem(A1)

SET PCR #Memory_Read_Stop

SUB R0, R1, 0xffff

ADD R2, R5, R7

MUL R3, R0, R2

STR Mem(A4), R3

CLR PCR #Memory_Read_Stop

LD R4, Mem(A5)

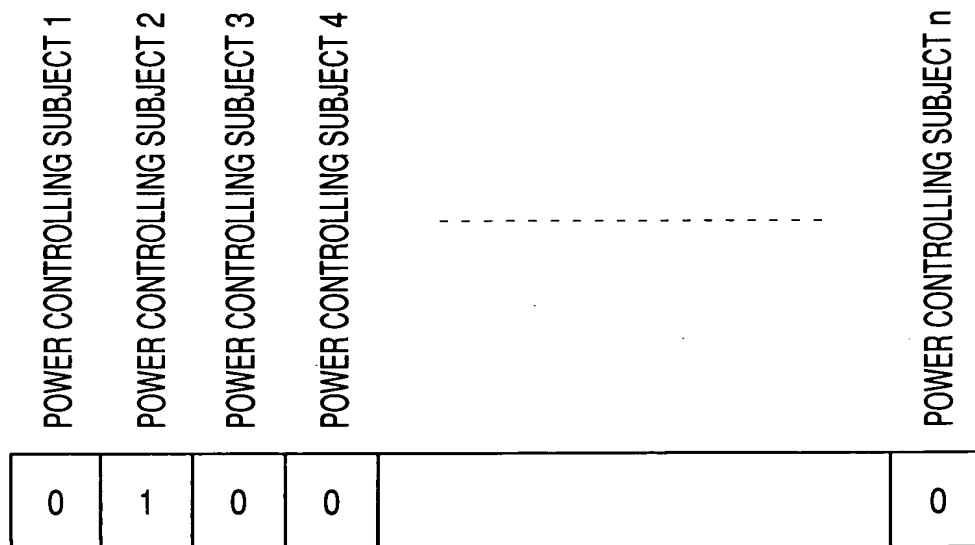
FIG. 6

FIG. 7

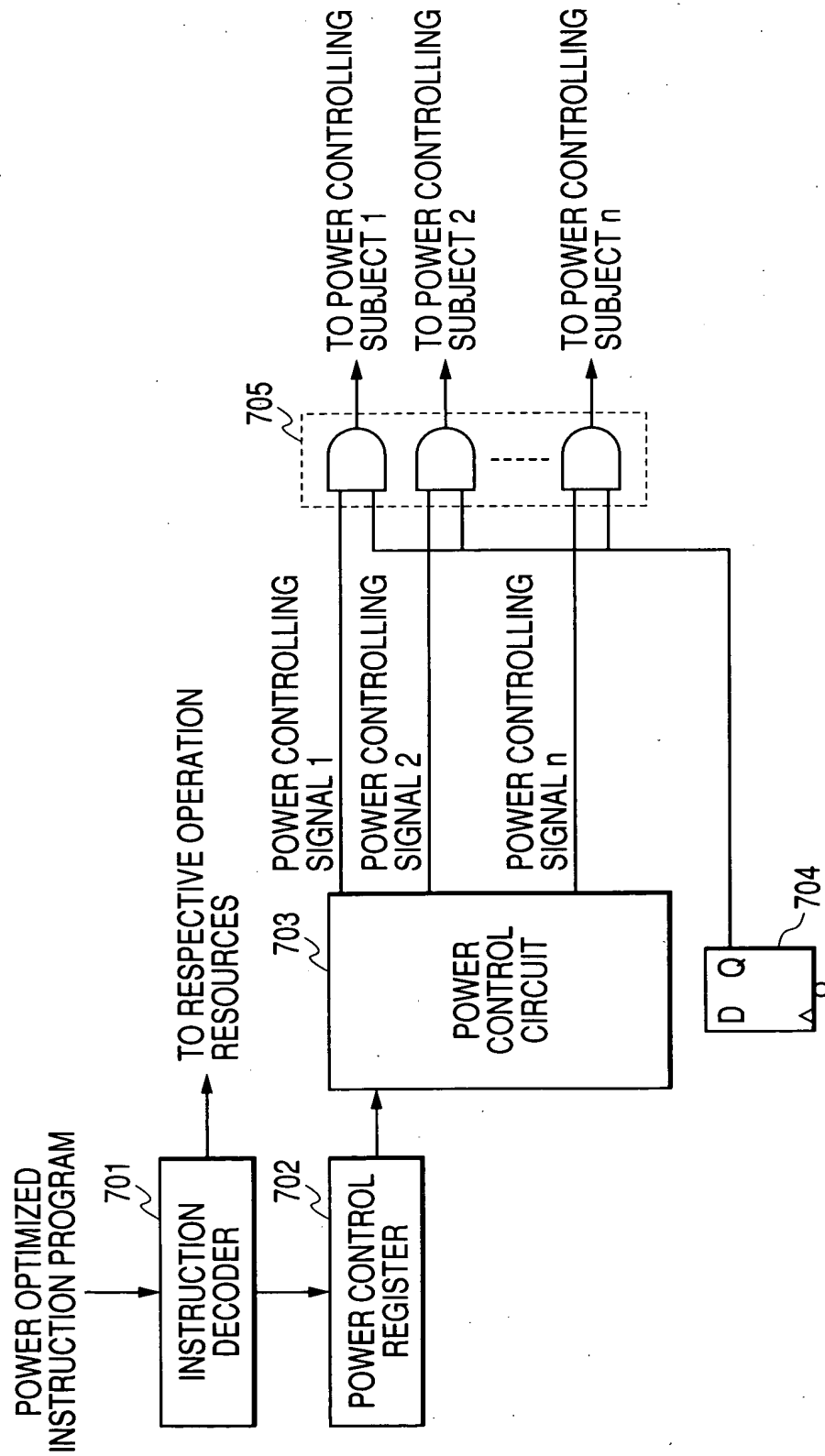


FIG. 8

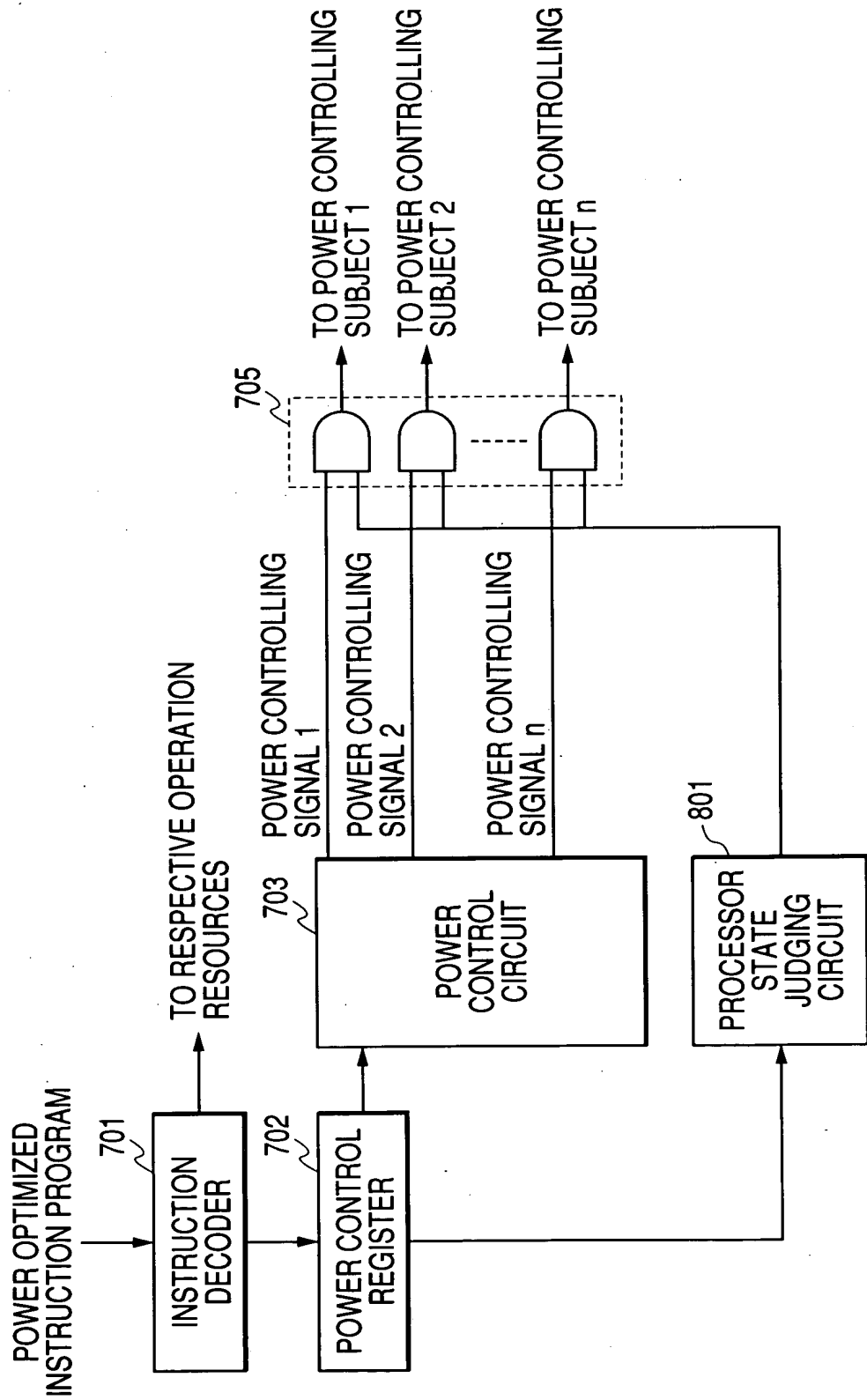


FIG. 9

PROGRAM ID	POWER CONTROL FUNCTION ON/OFF
ID1	ON
ID2	ON
ID3	OFF
ID4	ON

FIG. 10

```

data.a = data.b*1.75;
data.c = func.calc_d(in1, in2, in3);

if(cond.k==1) {adrs1 = adrs1+8;}

#pragma POWER_CONT_ON_Level1
for(i=0; i<256; i++) {
    out_sum = out_sum*data.c[adrs1]
}
#pragma POWER_CONT_OFF

if(out_sum>24) {adrs1 = adrs1+32;}

```


FIG. 11

LEVEL	CONTROL CONTENT
LEVEL 0	ONLY OPERATION RESOURCE WHICH CAN BE STOPPED IS DETECTED BY REPLACING INSTRUCTIONS
LEVEL 1	OPERATION RESOURCE WHICH IS NOT ACTUATED FOR 10, OR MORE SECTIONS IS DETECTED
LEVEL 2	OPERATION RESOURCE WHICH IS NOT ACTUATED FOR 5, OR MORE SECTIONS IS DETECTED
LEVEL 3	OPERATION RESOURCE WHICH IS NOT ACTUATED FOR 3, OR MORE SECTIONS IS DETECTED

FIG. 12

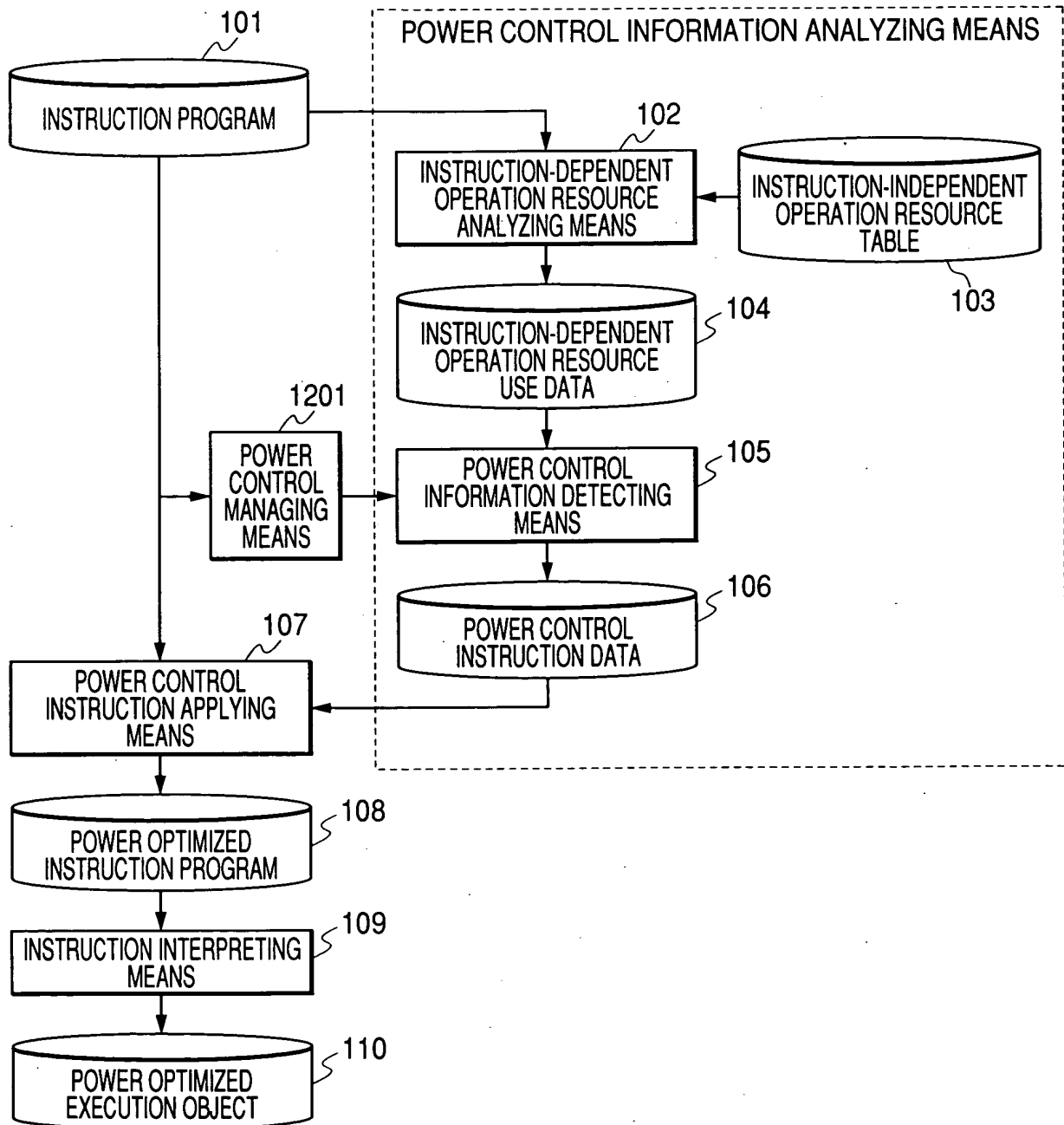


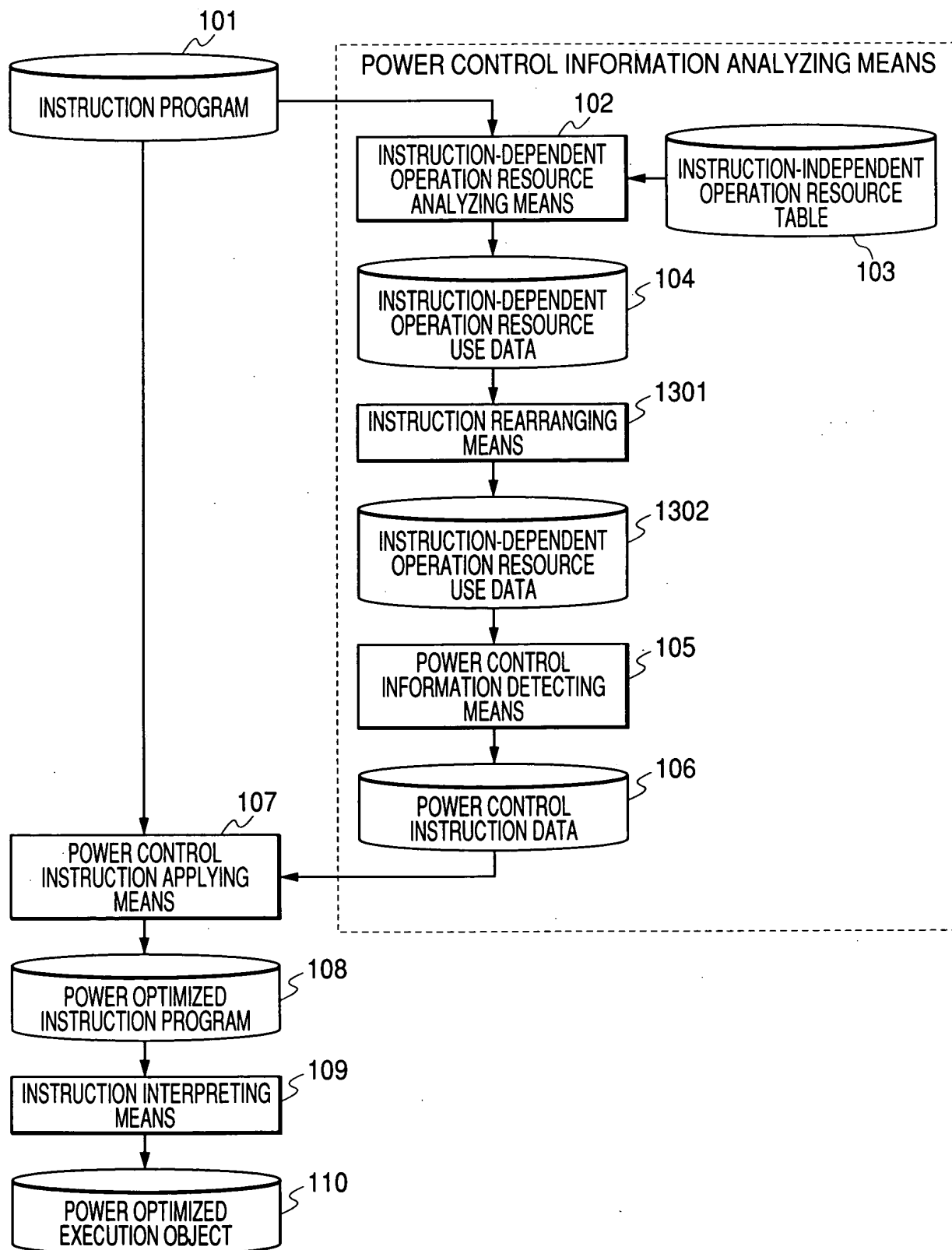
FIG. 13

FIG. 14

```
MOV R0, 0X00aa
ADD R5, R5, R0
LD R1, Mem(A1)
SUB R0, R1, 0X0fff
LD R7, Mem(A0)
ADD R2, R5, R7
MUL R3, R0, R2
STR Mem(A4), R3
```

0	0	1	0	0	0	0	0	0	0	0	1	0	0	1
0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	1	0	0	0	0	0	1	0	1	0
0	0	1	0	0	0	0	0	0	0	0	1	0	0	1
1	0	0	0	0	1	0	0	0	0	0	1	0	1	0
0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	1	0	0	0	0	0	0	0	1	0	0	0
0	1	0	0	0	1	1	0	0	0	0	1	0	1	0

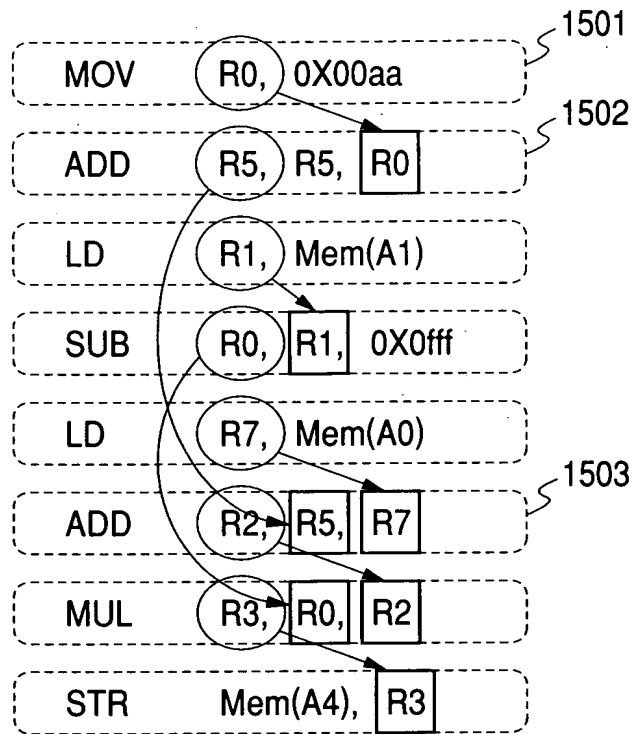
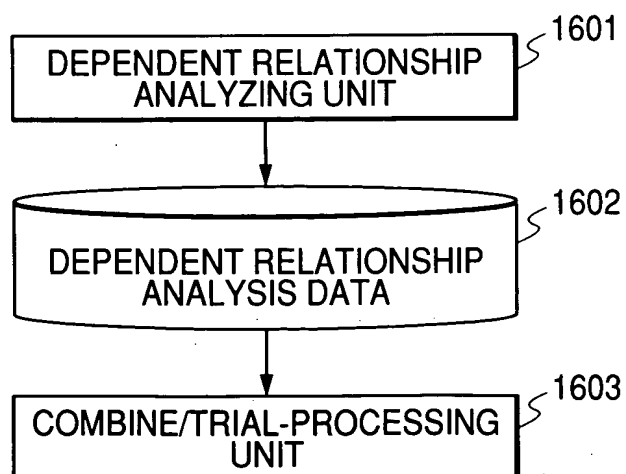
FIG. 15**FIG. 16**

FIG. 17

LD R1, Mem(A1)
 LD R7, Mem(A0)
 MOV R0, 0X00aa
 ADD R5, R5, R0
 SUB R0, R1, 0X0fff
 ADD R2, R5, R7
 MUL R3, R0, R2
 STR Mem(A4), R3

MEMORY READ OPERATION
 MEMORY WRITE OPERATION
 CALCULATOR A OPERATION
 CALCULATOR B OPERATION
 BRANCH UNIT A OPERATION
 BLOCK A OPERATION
 BLOCK B OPERATION
 BLOCK C OPERATION
 PERIPHERAL INTERFACE A OPERATION
 PARALLEL INSTRUCTION DECODE UNIT
 DATA REGISTER R0 TO R15
 DATA REGISTER R16 TO R31
 ADDRESS CALCULATION UNIT
 THRESHOLD VALUE UNIT

1	0	0	0	0	1	0	0	0	0	1	0	1	0
1	0	0	0	0	1	0	0	0	0	1	0	1	0
0	0	1	0	0	0	0	0	0	0	1	0	0	1
0	0	1	0	0	0	0	0	0	0	0	0	0	0
0	0	1	0	0	0	0	0	0	0	1	0	0	1
0	0	1	0	0	0	0	0	0	0	0	0	0	0
0	0	0	1	0	0	0	0	0	0	1	0	0	0
0	1	0	0	0	1	1	0	0	0	1	0	1	0

FIG. 18

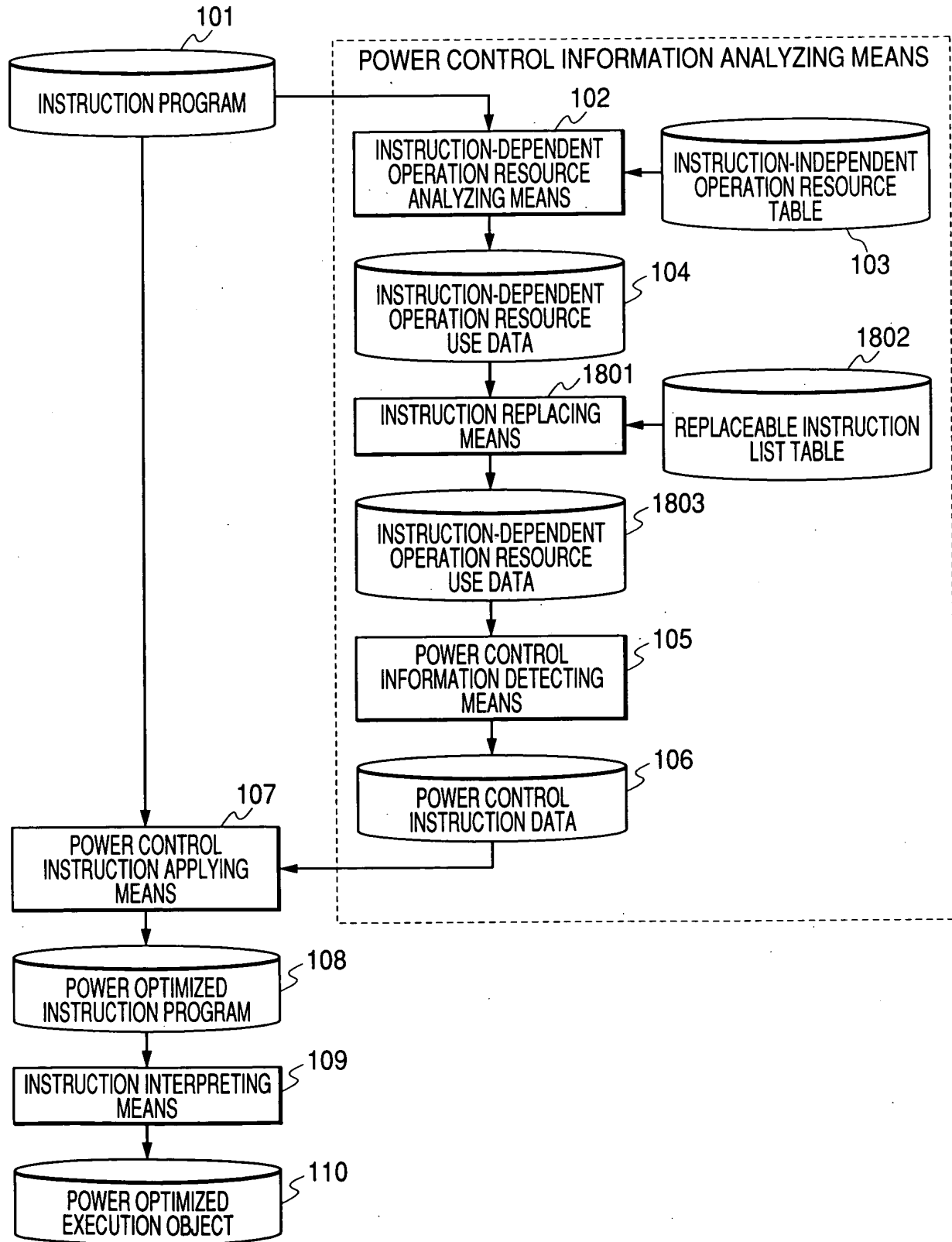


FIG. 19

STR Mem(A2), R9
 MUL R3, R0, 0x0002
 LD R1, Mem(A1)
 MUL R5, R7, 0x0004
 SUB R0, R1, 0x0fff
 ADD R2, R5, R7
 MUL R3, R0, R2
 STR Mem(A4), R3

MEMORY READ OPERATION	MEMORY WRITE OPERATION	SHIFTER OPERATION	MULTIPLIER OPERATION	BRANCH UNIT A OPERATION	BLOCK A OPERATION	BLOCK B OPERATION	BLOCK C OPERATION	PERIPHERAL INTERFACE A OPERATION	PARALLEL INSTRUCTION DECODE UNIT	DATA REGISTER R0 TO R15	DATA REGISTER R16 TO R31	ADDRESS CALCULATION UNIT	THRESHOLD VALUE UNIT
0	0	1	0	0	0	0	0	0	0	1	0	0	1
0	0	0	1	0	0	0	0	0	0	1	0	0	0
1	0	0	0	0	1	0	0	0	0	1	0	1	0
0	0	0	1	0	0	0	0	0	0	1	0	0	0
0	0	1	0	0	0	0	0	0	0	1	0	0	0
0	0	1	0	0	0	0	0	0	0	0	0	0	0
0	0	0	1	0	0	0	0	0	0	1	0	0	0
0	1	0	0	0	1	1	0	0	0	1	0	1	0

FIG. 20

STR Mem(A2), R9
 SFT R3, R0, 0x0001
 LD R1, Mem(A1)
 SFT R5, R7, 0x0002
 SUB R0, R1, 0x0fff
 ADD R2, R5, R7
 MUL R3, R0, R2
 STR Mem(A4), R3

MEMORY READ OPERATION	MEMORY WRITE OPERATION	SHIFTER OPERATION	MULTIPLIER OPERATION	BRANCH UNIT A OPERATION	BLOCK A OPERATION	BLOCK B OPERATION	BLOCK C OPERATION	PERIPHERAL INTERFACE A OPERATION	PARALLEL INSTRUCTION DECODE UNIT	DATA REGISTER R0 TO R15	DATA REGISTER R16 TO R31	ADDRESS CALCULATION UNIT	THRESHOLD VALUE UNIT
0	0	1	0	0	0	0	0	0	0	1	0	0	1
0	0	1	0	0	0	0	0	0	0	1	0	0	0
1	0	0	0	0	1	0	0	0	0	1	0	1	0
0	0	1	0	0	0	0	0	0	0	1	0	0	0
0	0	1	0	0	0	0	0	0	0	1	0	0	0
0	0	1	0	0	0	0	0	0	0	0	0	0	0
0	0	0	1	0	0	0	0	0	0	1	0	0	0
0	1	0	0	0	1	1	0	0	0	1	0	1	0

FIG. 21